

TABLE S-4 Summary of Key Project and Environmental Characteristics and Potential Impacts of the Proposed Action and Other Alternatives by Resource Area^a

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
<i>Air Quality (4.1)</i>					
Construction	Temporary localized fugitive dust emissions from construction activities would occur. These would be negligible, since as much construction as possible would be conducted during winter when the soil surface is frozen and since ground-level vegetation would be maintained to the extent possible.				No impact on air quality. Current air quality trends would continue.
	No conformity review required as the project area is in attainment with the EPA’s NAAQS.				
Operation	Impacts from operation and maintenance activities would be limited to vehicle emissions and dust from occasional travel on unpaved roads by BHE personnel or their contractors. Corona would generate less than 1 ppb of ozone in the immediate vicinity of the conductors.				
<i>Land Features (4.2)</i>					
Physiography	Negligible localized terrain changes could occur from installation of support structures, substation expansion, and establishment of new temporary access roads.				No impacts on land features.
Geology	Impacts on geologic resources would be negligible. The placement of poles, new temporary access roads, and substation expansions would require some disturbance and removal of near-surface material. (See <i>Land Use</i> for estimates of areas disturbed.)				
	Foundations for wood-pole support structures would require direct embedment of poles, requiring excavation of pits. Blasting may be required in areas of shallow bedrock. Concrete fill or foundations would be required for steel-pole support structures.				
Soils	Impacts on soils from erosion and compaction would be negligible because of the use of standard mitigation practices to minimize soil erosion and to promptly restore construction areas (Section 2.4).				
Seismicity	Low seismic risk within the project area.				
<i>Land Use (4.3)</i>					
Total ROW length (mi) ^b	85	85	84	114	
Total ROW area (acres) ^c	1,566	1,522	1,633	1,734	

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
Land Use (4.3) (Cont.)					
Length of new ROW (mi)	15	2	62	39	No impacts on existing land use.
Length adjacent to existing MEPCO or EMEC transmission lines (mi)	5	8	5	68	
Length adjacent to M&N gas pipeline and MEPCO transmission line (mi)	7	7	7	7	
Length adjacent to M&N gas pipeline and/or Stud Mill Road (mi)	58	68	10	0	
Number of support structures	608	636	563	885	
Number of support structure poles	1,333	1,436	1,190	1,834	
Permanent area occupied by all support structure poles (acres)	0.5	0.5	0.4	0.6	
Permanent additional area occupied by substation modifications (acres)	1.0	1.0	1.0	1.0	
Area requiring clearing for new temporary access roads (acres)	0	0	21	32	
Temporary area occupied by staging areas (acres)	42	42	42	57	

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
Land Use (4.3) (Cont.)					
Temporary disturbance by installation of AC mitigation over M&N gas pipeline (acres) ^d	82	82	82	54	
Forested lands within ROW (acres)	1,411	1,391	1,461	1,513	
Agricultural lands within ROW (acres)	30	28	28	86	
Agricultural lands within ROW lost from production (acres)	0.35	0.35	0.29	1.32	
Other land use within ROW (acres)	125	103	144	135	
Number of displaced dwellings	0	3	2	10	
Number of dwellings within 300 ft	14	20	10	47	
Number of dwellings within 600 ft	40	59	39	121	
Recreation	Recreational activities in the vicinity of the proposed project would primarily be impacted by a change in the visual setting of the recreation and by providing further access to recreational activities such as fishing, hunting, and ATV use.				
ATV impact areas (number of new or enhanced access areas)	0	0	19	1	

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
Land Use (4.3) (Cont.)					
Land use conflicts	No conflicts identified.	No conflicts identified.	Potentially conflicts with commercial logging activities.	No conflicts identified.	
Hydrological Resources (4.4)					
Construction and maintenance impacts	No adverse impacts on groundwater or surface water resources. Construction activities would not occur within streams or rivers. Standard mitigation practices would minimize erosion and sedimentation, loss of stream shading, and potential for contamination from herbicides and fuels.				No hydrological resource impacts. Current hydrologic resource patterns would continue.
ROW crossings of stream (number)	67	66	65	66	
ROW crossings of Class AA streams (number)	13	10	18	5	
ROW crossings of Class A streams (number)	44	46	41	41	
Crossings of streams for new temporary access roads (number)	0	0	0	1	
Lakes within 1 mi of ROW (number)	24	25	22	11	
Floodplains	Negligible change in flood elevation or changes in flow-carrying capacity of streams because of support structure placement in floodplains.				
Ecological Resources (4.5)					
Terrestrial vegetation	Upland vegetation would be primarily affected by clear-cutting or selective cutting to establish the ROW and, where required, installation of AC mitigation.				No impacts on ecological resources.
Forest lands crossed by ROW (acres)	1,411	1,391	1,461	1,513	

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
<i>Ecological Resources (4.5) (Cont.)</i>					
Disturbance of low-lying vegetation by installation of AC mitigation (acres)	82	82	82	54	
Wildlife	Impacts from transmission line construction would be temporary, local, and affect only individual animals. Impacts (beneficial or adverse) from the establishment of a ROW corridor on individual wildlife species are summarized in Appendix D of the EIS. Population-level impacts are considered to be very unlikely.				
Number of deer wintering areas crossed by ROW	2	1	2	1	
Area of deer wintering areas crossed by ROW (acres)	7.3	5.8	6.5	7.6	
Waterfowl and wading bird habitats crossed by ROW (acres)	133	113	93	148	
Aquatic biota	No adverse impacts on aquatic biota expected because of mitigation measures that would minimize the potential for erosion and sedimentation, stream warming, and chemical contamination (herbicides and fuel).				
Wetlands					
Number of NWI wetlands crossed by ROW	188	184	193	319	
Area of NWI wetlands crossed by ROW (acres)	133	108	152	173	
Length of NWI wetlands crossed by ROW (mi)	7.7	6.6	8.2	11.6	

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
<i>Ecological Resources (4.5) (Cont.)</i>					
Number of wetland crossings for new temporary access roads	0	0	2	11	
Forested wetlands converted to scrub-shrub or emergent wetlands in ROW (acres)	70	53	103	73	
Forested wetlands converted to scrub-shrub or emergent wetlands for new temporary access roads (acres)	0	0	0	0.6	
Special status species	Impacts are not expected to produce population-level effects that are distinguishable from natural variations in numbers or caused from ongoing perturbations (such as commercial forestry operations). Mitigation measures would protect special status species.				
Number of EFH water bodies crossed by ROW	67	66	65	66	
Forested land converted to scrub-shrub land within 150 ft of EFH water bodies (acres)	82	89	92	65	
Number of Atlantic salmon distinct-population-segment water bodies crossed by ROW	31	32	27	0	
Number of Atlantic salmon streams of special concern crossed by ROW	9	9	9	0	

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
<i>Ecological Resources (4.5) (Cont.)</i>					
Number of shortnose sturgeon habitats crossed by ROW	0	0	0	2	
Number of known bald eagle essential habitats crossed by ROW	0	0	0	1	
<i>Cultural Resources (4.6)</i>					
Potential for impacts on cultural resources	No impacts expected.	Impacts possible, but unlikely.	Impacts possible, but unlikely.	Impacts probable; Penobscot River drainage identified as an area of high potential for containing significant archaeological material.	No impacts on cultural resources.
Historic archaeological resources (number of sites within ROW)	0	0	0	1	
Historic archaeological resources (number of sites within 1 mi of ROW)	8	8	8	10	
Prehistoric archaeological resources (number of sites within ROW)	4	5	4	12	
Prehistoric archaeological resources (number of sites within 1 mi of ROW)	30	31	28	46	
NRHP sites (number of sites within ROW)	0	0	0	0	

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
<i>Cultural Resources (4.6) (Cont.)</i>					
NRHP sites (number of sites within 1 mi of ROW)	0	0	0	1	
Significant sensitive soils within ROW (acres)	87	111	115	21	
Significant sensitive soils within 1 mi of ROW (acres)	2,843	3,496	3,334	1,763	
Number of locations possessing high and moderate archaeological sensitivity along each ROW	51	51	51	59	
<i>Socioeconomics (4.7)</i>					
Construction period	Socioeconomic impacts would be similar for these three alternative routes. The proposed project would result in the creation of approximately 120 direct (construction) jobs and approximately 110 indirect (service-related) jobs during construction. No influx of population or stress to community services would be expected.			The proposed project would result in the creation of approximately 150 direct and 130 indirect jobs during construction. No influx of population or stress to community services would be expected.	No socioeconomic impacts. Current socioeconomic trends would continue.
Operational period	No adverse socioeconomic impacts would be expected from project operation for any of the alternative routes.				

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
<i>Environmental Justice Considerations (4.8)</i>					
Project impacts	No disproportionately high and adverse impacts on minority or low-income populations.			One minority census block group occurs within the 2-mi zone along the route. No disproportionately high and adverse impacts on minority or low-income populations.	Existing conditions would continue. No disproportionately high and adverse impacts on minority or low-income populations.
Native American lands crossed by ROW (acres)	0	0	0	4	
<i>Visual Resources (4.9)</i>					
Visual impacts	Visual impacts would occur from the introduction of support structures and transmission line wires into the landscape. Substation expansions would have negligible visual impact given that similar equipment already exists on site and because of existing development in the area of the substations.				The existing landscape and scenic integrity would continue.
Number of Outstanding River Segments crossed by ROW	2	2	2	0	
<i>Health and Safety (4.10)</i>					
Electric shocks	Industrywide standards are in place to eliminate or greatly reduce the potential for electric shocks for all alternative routes. AC mitigation would be required to reduce shock hazards for the M&N gas pipeline.				No health and safety impacts. EMF exposure from existing transmission lines and household appliances would continue. Current noise patterns would continue. No fatalities or injuries from construction or maintenance activities.
EMF effects	EMF exposure at the nearest residences would mostly be below the average daily exposure to maximum magnetic fields from common household appliances. Electric field exposures at the edge of the ROW would be below guidelines that have been established for several states. No health effects would be expected from this exposure.				
Noise effects	The primary effect of noise would be annoyance to the residents and recreationists nearest to the ROW during construction, and this impact would be short term. Long-term noise from corona effect on transmission lines would be generally lost in background noise. Noise from maintenance activities (such as tree trimming with chainsaws) would be localized, short lived, and infrequent.				

TABLE S-4 (Cont.)

Resource Area (EIS Impact Analysis Section Number)	Modified Consolidated Corridors Route (Preferred Alternative)	Consolidated Corridors Route Alternative	Previously Permitted Route (No Action Alternative)	MEPCO South Route Alternative	Recission of Presidential Permit Alternative
Health and Safety (4.10) (Cont.)					
Cardiac pacemaker and radio/television interference	The potential risk to people with pacemakers and the potential for radio and television interference would be negligible for all alternative routes. What little potential there is would be slightly greater for the MEPCO South Route because it has more dwellings within 100 ft of the ROW and has more highway crossings than the other alternative routes.				
Herbicide use	The potential human health risks from herbicide usage would be negligible for all alternative routes because of regulations and standard mitigation practices associated with the use of these products.				
Project-related fatalities and injuries	The potential risk of occupational physical injuries or fatalities to construction and maintenance workers would be small (i.e., <1 death and <10 nonfatal injuries from construction and <0.1 death and <6 nonfatal injuries from maintenance). The potential risk of physical injuries or fatalities to the general public would be small and would primarily occur from indirect impacts such as snowmobile or ATV accidents while using the ROW.				

- ^a Abbreviations: AC = alternating current, ATV = all-terrain vehicle, BHE = Bangor Hydro-Electric Company, EFH = essential fish habitat, EMEC = Eastern Maine Electric Cooperative, EPA = U.S. Environmental Protection Agency, MEPCO = Maine Electric Power Company, M&N = Maritimes & Northeast Pipeline, L.L.C., NAAQS = National Ambient Air Quality Standards, NRHP = *National Register of Historic Places*, NWI = National Wetlands Inventory, ppb = part(s) per billion, ROW = right-of-way.
- ^b To convert miles to kilometers, multiply by 1.609; to convert acres to hectares, multiply by 0.405; to convert feet to meters, multiply by 0.305.
- ^c Total area was determined by multiplying ROW length by ROW width on the basis of the following assumptions: (1) width of new ROW would be 170 ft; (2) width of ROW when adjacent to existing transmission line would be 100 ft; (3) width of ROW when adjacent to M&N gas pipeline and a transmission line would be 125 ft; and (4) width of ROW when adjacent to M&N gas pipeline and/or Stud Mill Road would be 155 ft.
- ^d Installation of AC mitigation over the M&N gas pipeline is a connected action to the proposed project.